

SYSTEM **P**LANNING & **A**NALYSIS **R**EPORT

S-1A

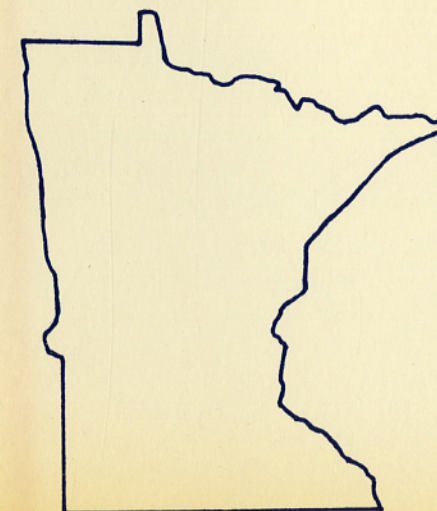
T.H. 212, 95

T.H. 694 TO ST. CROIX RIVER AND
T.H. 95 BY-PASS

S.P. 8214-47, 8210

FEBRUARY, 1970

PREPARED BY
OFFICE OF SYSTEM PLANNING



**MINNESOTA
DEPARTMENT
OF HIGHWAYS**

DEPARTMENT HIGHWAY

Office Memorandum

TO : Paul G. Velz
Road Design Engineer

DATE: February 25, 1970

FROM : Morris Gildemeister, Chief
Statewide Planning Section

SUBJECT: T.H. 212, 95; T.H. 694 to St. Croix River and T.H. 95 By-Pass
S.P. 8214-47, 8210
System Planning & Analysis Report S-1A

The Statewide Planning Section transmits this report in response to K. McRae's October 31, 1969 request for the 1985 ADT, DHV, and HCADT for the project location shown on the map on page 2.

The estimated 1985 one-way ADT volumes are shown on the maps on pages 3 and 4 for Alternates 1 and 2 respectively.

For each segment numbered on the maps on pages 3 and 4, the following data are tabulated on pages 5-9 and 10 respectively.

- (a) Total ADT
- (b) Vehicle Type Distribution
- (c) Total HCADT

Segment 6 on proposed T.H. 212 with a 1985 one-way ADT of 16400, has the highest 1985 ADT on the project section of this highway. The parallel segment on existing T.H. 212 has a 1968 one-way ADT of 2050 vehicles.

The basic data, method, and assumptions used to prepare this report are presented on page 11.

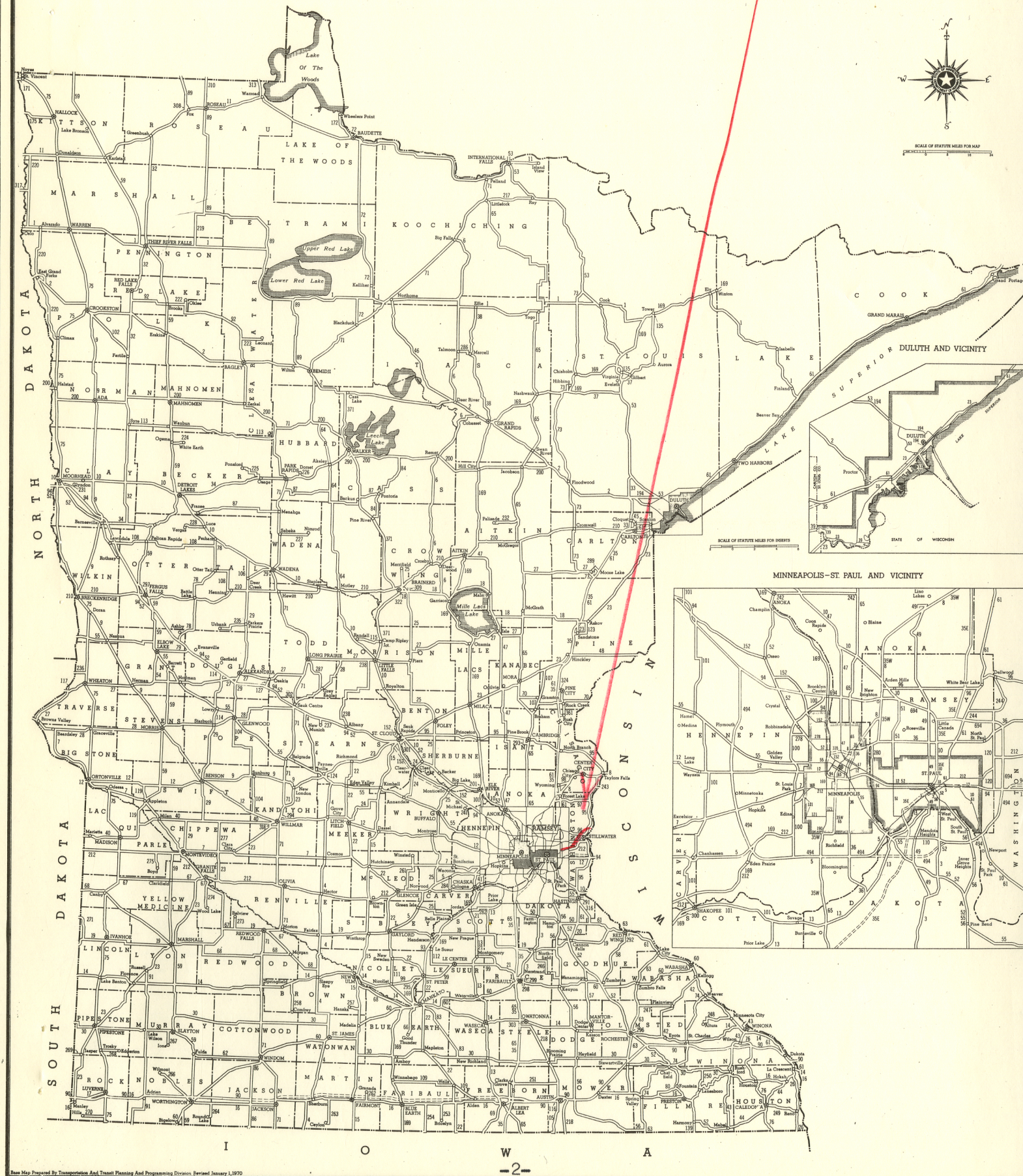
Morris Gildemeister

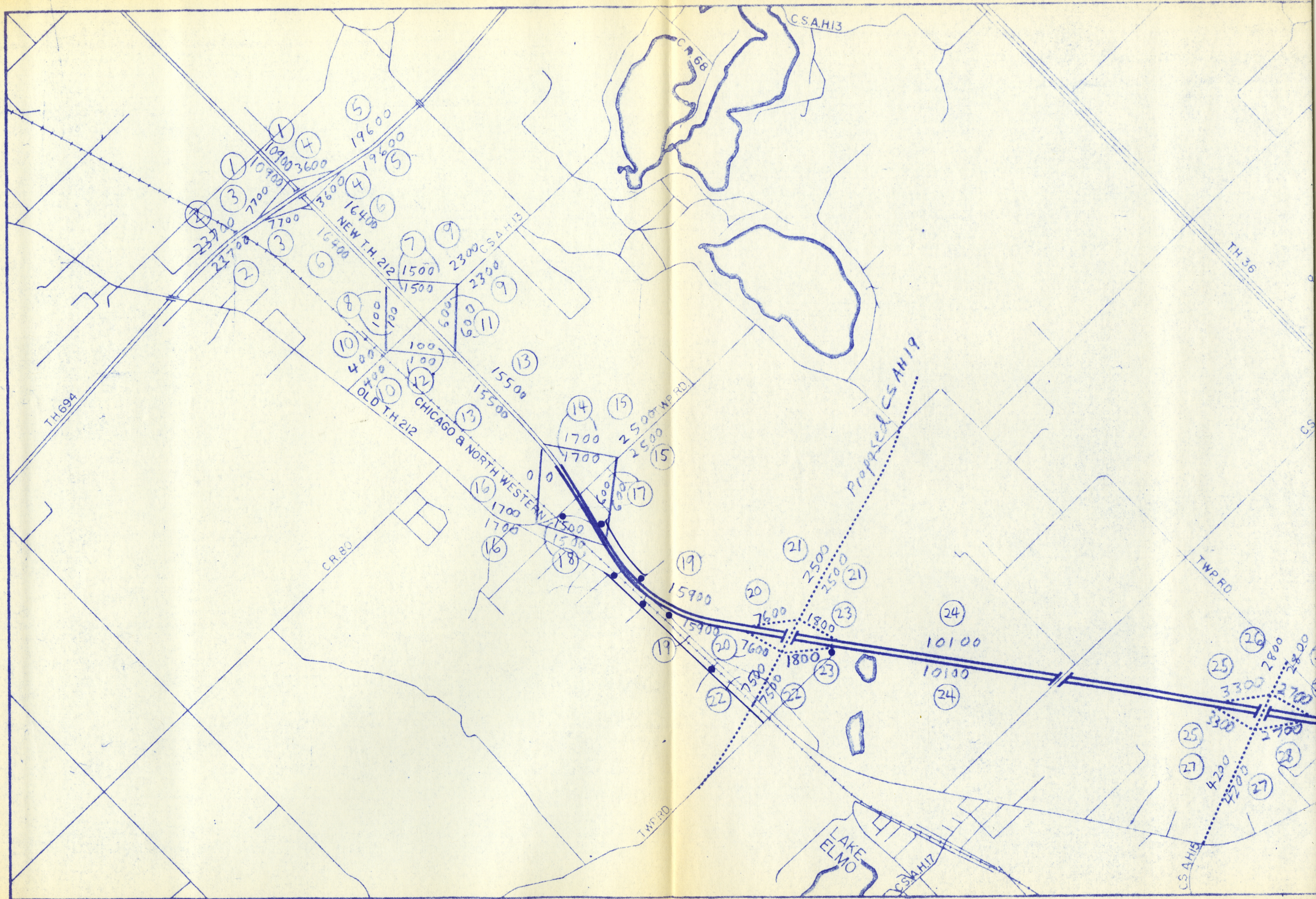
Morris Gildemeister, Chief
Statewide Planning Section

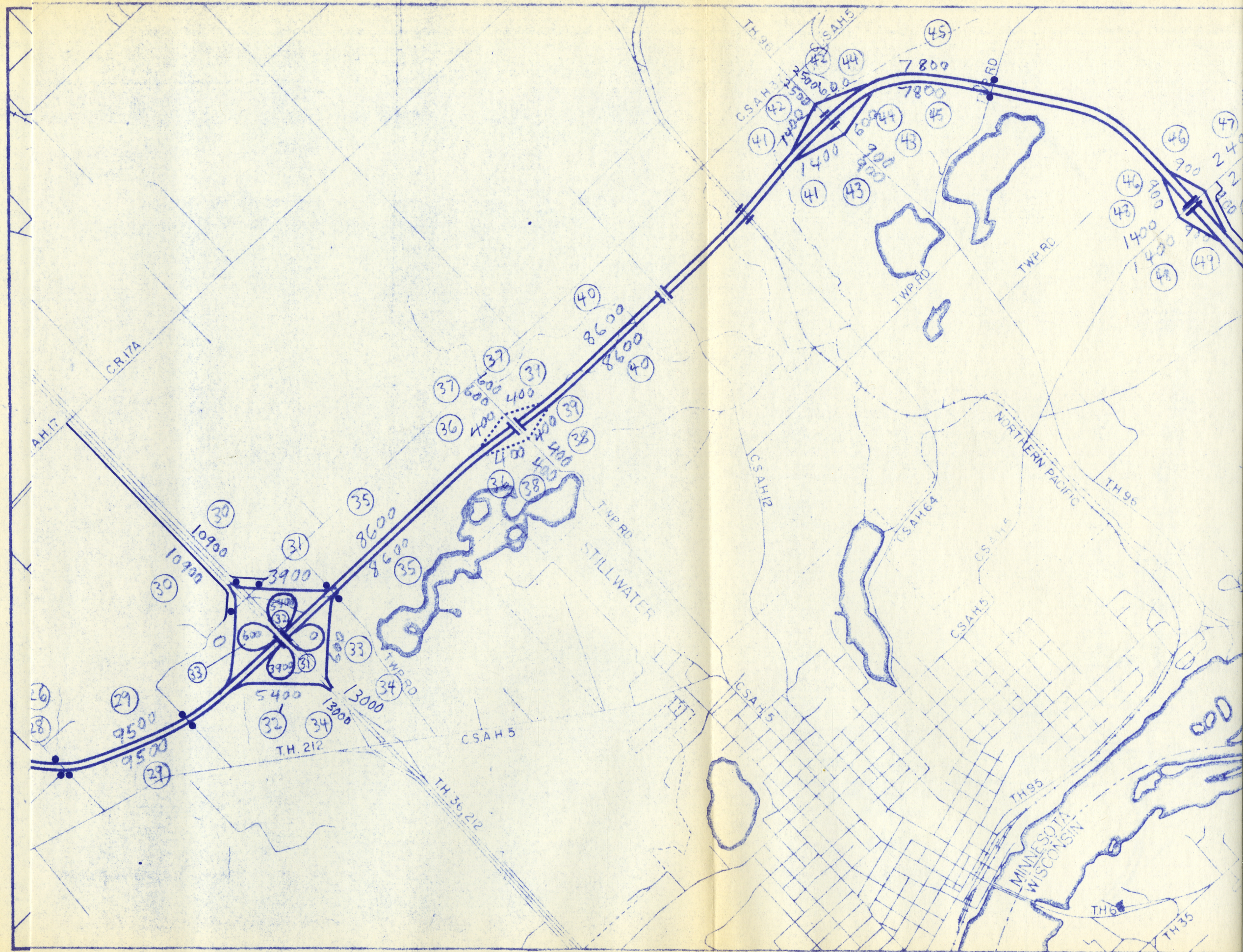
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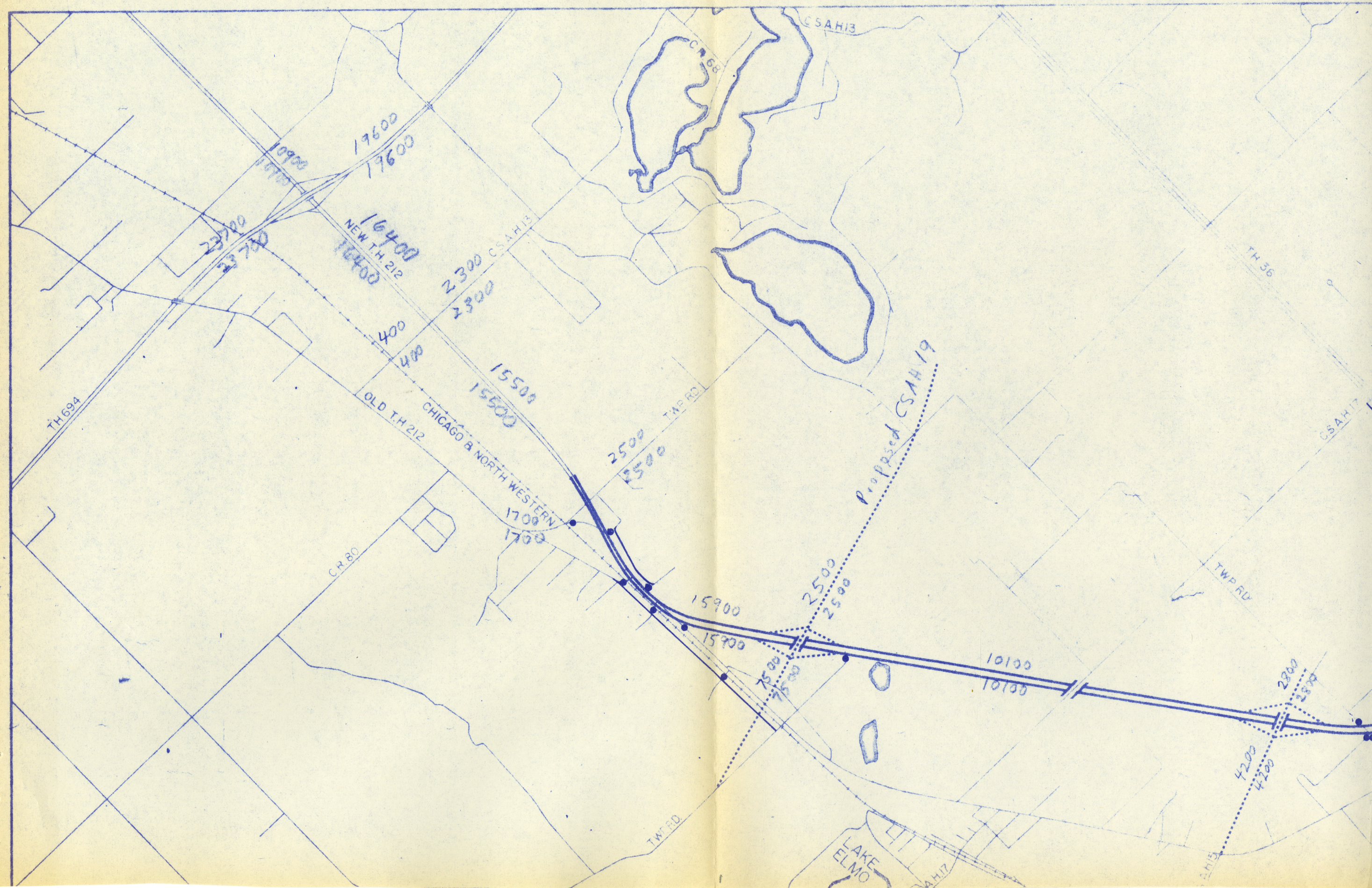
STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS
WORK MAP

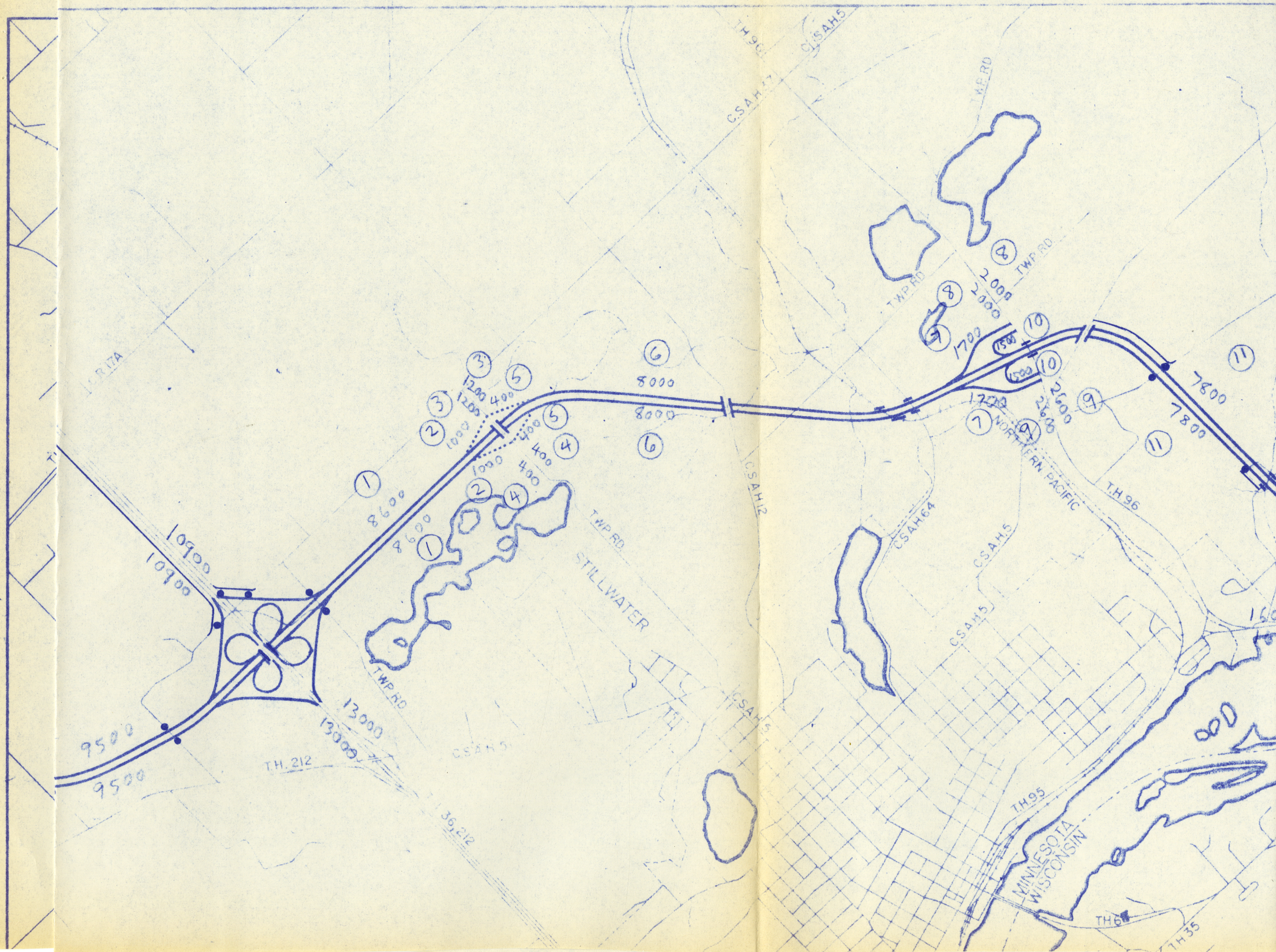
Project Location
S.P. 8214 -47
8210

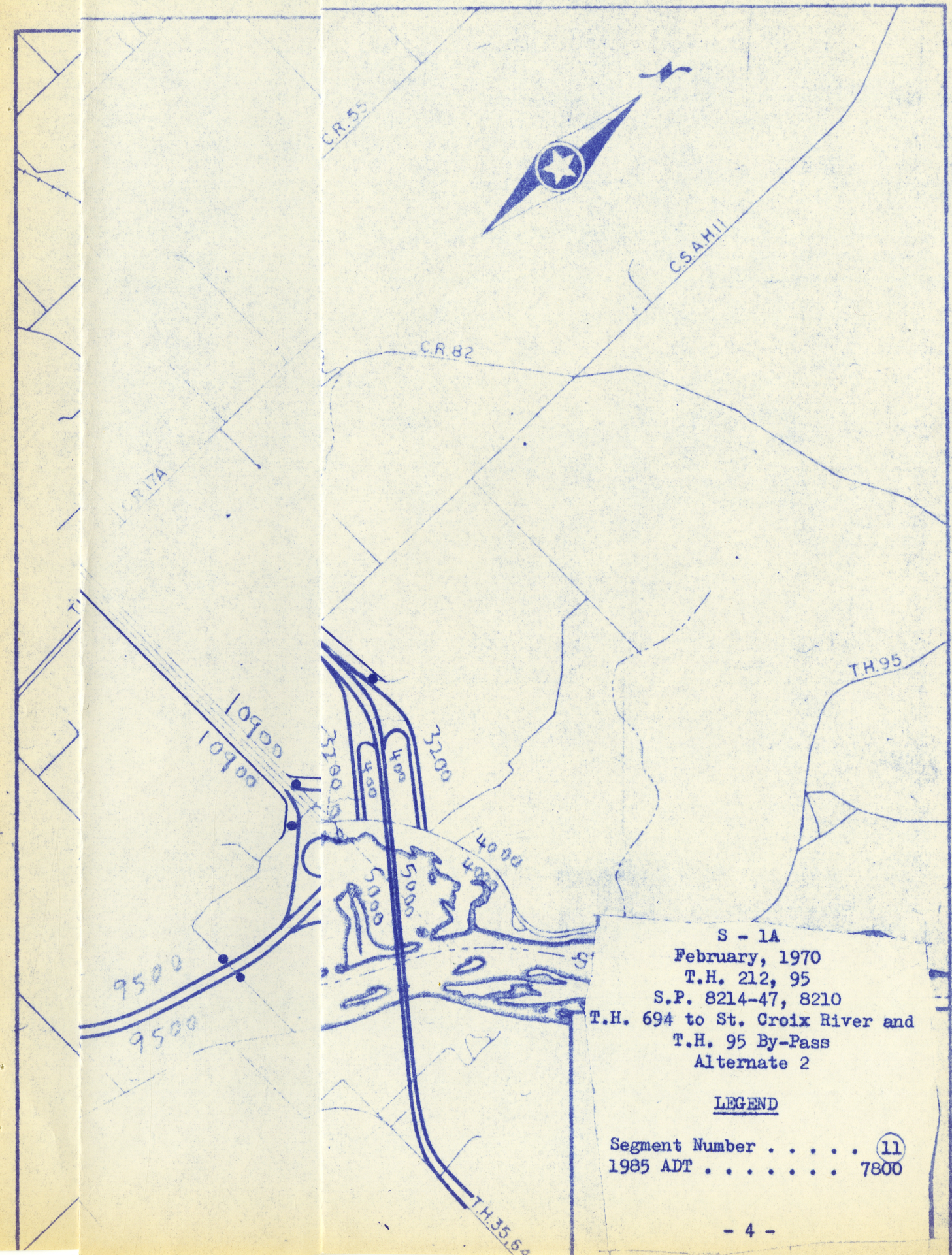












S - 1A
February, 1970
T.H. 212, 95
S.P. 8214-47, 8210
T.H. 694 to St. Croix River and
T.H. 95 By-Pass
Alternate 2

LEGEND

Segment Number 11
1985 ADT 7800

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 1 OF 5

FOR

T.H. 212 S.P. 8214 - 47, 8210 LENGTH ----- MILES
 COUNTY Washington LOCATION T.H. 694 to St. Croix River
and T.H. 95 By-Pass

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 1 THROUGH 11 AS

DEFINED ON ATTACHED INDEX MAP of Alternate 1 on page 3.

VEHICLE # TYPE	SEGMENT NUMBER										
	1	2	3	4	5	6	7	8	9	10	11
0	10280	22429	7278	3424	18575	15490	1431	96	2187	377	571
1	300	493	230	87	349	454	44	3	69	14	17
2	66	300	73	26	253	114	8	-	14	2	4
3	50	53	8	3	48	55	2	-	4	1	1
4	25	111	27	25	109	50	2	-	4	1	1
5	50	168	8	4	164	56	1	-	2	-	1
6	129	147	76	31	102	181	12	1	20	5	5
TOTAL ADT	10900	23700	7700	3600	19600	16400	1500	100	2300	400	600
TOTAL H. COMM. ADT	620	1271	422	176	1025	910	69	4	113	23	29
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

0 = PASSENGER CARS AND 4 TIRE TRUCKS
 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
 2 = SINGLE UNIT-3 AXLE TRUCKS
 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
 5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES
 6 = BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 2 OF 5

FOR

T.H. 212 S.P. 8214-47, 8210 LENGTH ----- MILES
 COUNTY Washington LOCATION T.H. 694 to St. Croix River
and T.H. 95 By-Pass

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 12 THROUGH 22 AS

DEFINED ON ATTACHED INDEX MAP of Alternate 1 on page 3.

VEHICLE # TYPE	SEGMENT NUMBER										
	12	13	14	15	16	17	18	19	20	21	22
0	96	14630	1610	2371	1632	568	1439	15027	7159	2344	7068
1	3	427	54	79	46	19	41	433	209	74	205
2	-	110	5	7	4	2	3	110	41	15	40
3	-	54	3	5	2	2	1	54	28	10	27
4	-	49	5	6	3	1	3	48	37	12	36
5	-	56	1	2	1	1	1	57	41	15	40
6	1	174	22	30	12	7	12	171	85	30	84
TOTAL ADT	100	15500	1700	2500	1700	600	1500	15900	7600	2500	7500
TOTAL H. COMM. ADT	4	870	90	129	68	32	61	873	441	156	432
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

0 = PASSENGER CARS AND 4 TIRE TRUCKS
 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
 2 = SINGLE UNIT-3 AXLE TRUCKS
 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
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 6 = BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 3 OF 5

FOR

T.H. 212 S.P. 8214-47, 8210 LENGTH ----- MILES
COUNTY Washington LOCATION T.H. 694 to St. Croix River
and T.H. 95 By-Pass

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 23 THROUGH 33 AS

DEFINED ON ATTACHED INDEX MAP of Alternate 1 on page 3.

VEHICLE # TYPE	SEGMENT NUMBER										
	23	24	25	26	27	28	29	30	31	32	33
0	1720	9588	3092	2626	3936	2532	9028	10361	3718	5150	572
1	38	262	107	83	128	88	243	236	93	129	14
2	7	76	16	16	24	13	73	65	31	43	5
3	5	31	16	11	17	12	27	14	8	11	1
4	7	18	13	13	20	10	15	44	12	14	2
5	7	23	14	17	24	10	19	145	11	15	2
6	16	102	42	34	51	35	95	35	27	38	4
TOTAL ADT	1800	10100	3300	2800	4200	2700	9500	10900	3900	5400	600
TOTAL H. COMM. ADT	80	512	208	174	264	168	472	539	182	250	28
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

- 0= PASSENGER CARS AND 4 TIRE TRUCKS
1= SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
2= SINGLE UNIT-3 AXLE TRUCKS
3= TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4= TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
5= TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES
6= BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 4 OF 5

FOR

T.H. 212 S.P. 8214-47, 8210 LENGTH ----- MILES
COUNTY Washington LOCATION T.H. 694 to St. Croix River
and T.H. 95 By-Pass

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 34 THROUGH 44 AS

DEFINED ON ATTACHED INDEX MAP of Alternate 1 on page 3.

VEHICLE # TYPE	SEGMENT NUMBER										
	34	35	36	37	38	39	40	41	42	43	44
0	12365	8168	387	581	387	387	8168	1337	2386	858	573
1	286	221	7	10	7	7	221	29	53	20	12
2	82	66	1	2	1	1	66	5	10	4	2
3	18	25	1	1	1	1	25	4	8	3	2
4	48	15	-	1	-	-	15	6	10	4	2
5	151	17	1	1	1	1	17	6	10	3	3
6	50	88	3	4	3	3	88	13	23	8	6
TOTAL ADT	13000	8600	400	600	400	400	8600	1400	2500	900	600
TOTAL H. COMM. ADT	635	432	13	19	13	13	432	63	114	42	27
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

- 0= PASSENGER CARS AND 4 TIRE TRUCKS
1= SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
2= SINGLE UNIT-3 AXLE TRUCKS
3= TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4= TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
5= TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES
6= BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 5 OF 5

FOR

T.H. 212 S.P. 8214-47, 8210 LENGTH ----- MILESCOUNTY Washington LOCATION T.H. 694 to St. Croix Riverand TH 95 By-Pass

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 45 THROUGH 55 AS

DEFINED ON ATTACHED INDEX MAP of Alternate 1 on page 3.

VEHICLE * TYPE	SEGMENT NUMBER										
	45	46	47	48	49	50	51	52	53	54	55
0	7404	867	2311	1348	867	7404	3010	377	1490	3790	4771
1	204	16	42	24	16	204	91	11	58	126	124
2	63	3	8	5	3	63	37	4	5	32	30
3	23	2	7	5	2	23	10	1	1	8	14
4	11	3	6	3	3	11	1	1	7	8	11
5	14	3	8	4	3	14	4	1	9	12	11
6	81	6	18	11	6	81	47	5	30	24	39
TOTAL ADT	7800	900	2400	1400	900	7800	3200	400	1600	4000	5000
TOTAL H. COMM. ADT	396	33	89	52	33	396	190	23	110	210	229
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

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 2 = SINGLE UNIT-3 AXLE TRUCKS
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TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 1 OF 1

FOR

T.H. 212 S.P. 8214-47, 8210 LENGTH ----- MILESCOUNTY Washington LOCATION T.H. 694 to St. Croix Riverand T.H. 95 By-Pass

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 1 THROUGH 11 AS

DEFINED ON ATTACHED INDEX MAP of Alternate 2 on page 4.

VEHICLE * TYPE	SEGMENT NUMBER										
	1	2	3	4	5	6	7	8	9	10	11
0	8166	960	1154	387	387	7595	1631	1910	2487	1440	7404
1	221	20	23	7	7	208	32	42	53	28	204
2	66	3	4	1	1	64	6	8	10	5	63
3	25	3	3	1	1	23	4	6	7	4	23
4	15	2	3	-	-	13	7	8	10	5	11
5	17	3	3	1	1	15	7	8	10	6	14
6	88	9	10	3	3	82	13	18	23	12	81
TOTAL ADT	8600	1000	1200	400	400	8000	1700	2000	2600	1500	7800
TOTAL H. COMM. ADT	432	40	46	13	13	405	69	90	113	60	396
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

0 = PASSENGER CARS AND 4 TIRE TRUCKS
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Basic Data, Methods, and Assumptions

The 1985 ADT and DHV is presented in TAS 639D-14 transmitted December 10, 1969.

The total heavy commercial ADT agrees with System "14" Computer Truck Study.

The vehicle type distributions were adjusted for the two alternate roadway designs.

The 1994 volumes may be obtained by expanding the enclosed volumes by approximately 30%.